APPENDIX F
DUMMY POSITIONING PROCEDURES FOR DRIVER AND PASSENGER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR DRIVER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

NHTSA No. _____ Test Date: _____

Laboratory: _____ Test Technician(s): _____

Impact Angle: _____ Belted Dummies: __Yes__No

Test Speed: __32 to 40 kmph __0 to 48 kmph __0 to 56 kmph

__1. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
__N/A – No lumbar adjustment

__2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)
__N/A – No additional support adjustment

__3. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)
__N/A – No independent fore-aft seat cushion adjustment

__4. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)

__5. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
__N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____
Tested seat back angle _____

__6. If adjustable, set the head restraint at the full up and full forward position. Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. (S8.1.3)
__N/A – No head restraint adjustment

__7. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
__N/A – No adjustable upper seat belt anchorage
Manufacturer's specified anchorage position. _____
Tested anchorage position _____

__8. Place the adjustable accelerator pedal in the full forward position.
__N/A – the accelerator pedal is not adjustable.

__9. Set the steering wheel hub at the geometric center of the full range of driving positions including any telescoping positions as determined in data sheet 14.

__10. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in item 1.18 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)

__11. Rest the thighs on the seat cushion. (S10.5)

__12. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°)

__13. Is the head level within ± 0.5°? (S10.1)
__Yes, go to 14
__No, go to 13.1

__13.1 Adjust the position of the H-point. (S10.1)

__13.2 Is the head level within ± 0.5°? (S10.1)
__Yes, record the following, then go to 15. __No, go to 13.3
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__13.3 Adjust the pelvic angle. (S10.1)

__13.4 Is the head level within ± 0.5°? (S10.1)
__Yes, record the following, then go to 14. __No, go to 13.5
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__13.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within ± 0.5°. (S10.1)
Record the following, then go to 14
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__14. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
__measured distance (10.6 inches) (S10.5)

__15. Can the right foot be placed on the accelerator?
__Yes, go to 15.1 and skip 15.2
__No, go to 15.2

__15.1. To the extent practicable keep the right thigh and the leg in a vertical plane (S10.5) while resting the foot on the undepressed accelerator pedal with the rearmost point of the heel on the floor pan in the plane of the pedal. (S10.6.1.1)

__15.2 Initially set the foot perpendicular to the leg and then place it as far forward as possible in the direction of the pedal centerline with the rearmost point of the heel resting on the floor pan. (S10.6.1.1)

__15.2.1 Move the adjustable pedal to its most rearward position or until the right foot is flat on the pedal, whichever occurs first. (S10.6.1.1)
__N/A – the accelerator pedal is not adjustable

__16. Does the vehicle have a foot rest?
__Yes, go to 16.1
__No, go to 16.2

__16.1 With the left thigh and leg in a vertical plane, place the foot on the foot rest with the heel resting on the floor pan. (S10.6.1.2)

__16.1.1 Is the left foot elevated above the right foot?
__Yes, go to 16.1.2 and position the foot off the foot rest
__No, go to 17

__16.1.2 Check the ONLY one of the following that applies
__The foot reaches the toeboard without adjusting the foot or leg. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard, skip 16.1.3 (S10.6.1.2)

__The foot reaches the toeboard but contacts the brake or clutch pedal and must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg to avoid pedal contact, skip 16.1.3 (S10.6.1.2)

__The foot reaches the toeboard but contacts the brake or clutch pedal and the foot and leg must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact, skip 16.1.3 (S10.6.1.2)

__N/A – the foot does not reach the toeboard, go to 16.1.3

__16.1.3 Check the ONLY one of the following that applies

__The foot did not contact the brake or clutch pedal. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan. (S10.6.1.2)

__The foot did contact the brake or clutch pedal and the foot was rotated to avoid contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot the minimum amount to avoid pedal contact. (S10.6.1.2)

__The foot did contact the brake or clutch pedal and the foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact. Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot about the leg and the thigh and leg outboard about the hip the minimum distance necessary to avoid pedal contact. (S10.6.1.2)

__17. Place the right upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

__18. Is the driver seat belt used for this test?

__Yes, continue

__No, go to 19

__18.1 Fasten the seat belt around the dummy.

__18.2 Remove all slack from the lap belt portion. (S10.9)

__18.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

__18.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)

____pound load applied

__18.5 Is the belt system equipped with a tension-relieving device?

__Yes, continue

__No, go to 19

__18.6 Introduce the maximum amount of slack into the upper torso bet that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9).

__19. Place the left upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)

__20. Place the right hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

__21. Place the left hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)

__22. Tape the thumb of each hand to the steering wheel by using masking tape with a width of 0.25 inch. The length of the tape shall only be enough to go around the thumb and steering wheel one time.

_____ _____

I certify that I have read and performed each instruction. Date

APPENDIX F
DUMMY POSITIONING PROCEDURES FOR PASSENGER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

NHTSA No. _____ Test Date: _____

Laboratory: _____ Test Technician(s): _____

Impact Angle: _____ Belted Dummies: __Yes__No

Test Speed: __32 to 40 kmph __0 to 48 kmph __0 to 56 kmph

__1. The seat is a bench seat for which the adjustments have already been made for the driver and there are no independent adjustments that can be made for the passenger. Go to 7.
__N/A- the passenger seat adjusts independently of the driver seat.

__2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
__N/A – No lumbar adjustment

__3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)
__N/A – No additional support adjustment

__4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)
__N/A – No independent fore-aft seat cushion adjustment

__5. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)

__6. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
__N/A – No seat back angle adjustment
Manufacturer's design seat back angle _____
Tested seat back angle _____

__7. If adjustable, set the head restraint at the full up and full forward position. Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. (S8.1.3)
__N/A – No head restraint adjustment

__8. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
__N/A – No adjustable upper seat belt anchorage
Manufacturer's specified anchorage position. _____
Tested anchorage position _____
__ N/A - the seat does not have a fore-aft adjustment

__9. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in item 2.19 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)

__10. Rest the thighs on the seat cushion. (S10.5)

__11. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)

____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°)

__12. Is the head level within ± 0.5°? (S10.1)
__Yes, go to 13
__No, go to 12.1

__12.1 Adjust the position of the H-point. (S10.1 and S10.4.2.1)

__12.2 Is the head level within ± 0.5°? (S10.1)
__Yes, record the following, then go to 13. __No, go to 12.3
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__12.3 Adjust the pelvic angle. (S10.1)

__12.4 Is the head level within ± 0.5°? (S10.1)
__Yes, record the following, then go to 13. __No, go to 12.5
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__12.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within ± 0.5°. (S10.1)
Record the following, then go to 13
____horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
____pelvic angle (20° to 25°) (S10.4.2.2)

__13. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
_____ measured distance (10.6 inches) (S10.5)

__14. Check the only one of the following that applies:
__To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, place the feet on the toeboard with the heels resting on the floor pan as close as possible to the intersection of the floor pan and toeboard.
__The feet cannot be placed flat on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heels resting on the floor pan.
__The vehicle has a wheelhouse projection. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heels resting on the floor pan. Do not set the feet on the wheelhouse projection.
__The vehicle has a wheelhouse projection and the feet cannot be placed on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. . Do not set the feet on the wheelhouse projection.

__15. Place the left upper arm in contact with the seat back and side of the torso. (S10.2.2)

__16. Is the passenger seat belt used for this test?
__Yes, continue
__No, go to 17

__16.1 Fasten the seat belt around the dummy.

__16.2 Remove all slack from the lap belt portion. (S10.9)

__16.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)
__16.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
____pound load applied
__16.5 Is the belt system equipped with a tension relieving device?
__Yes, continue
__No, go to 17
__16.6 Introduce the maximum amount of slack into the upper torso bet that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 17.
__17. Place the right upper arm in contact with the seat back and side of the torso. (S10.2.2)
__18. Place the left hand palm in contact with the outside of the left thigh and the little finger in contact with the seat cushion. (S10.3.2)
__19. Place the right hand palm in contact with the outside of the right thigh and the little finger in contact with the seat cushion. (S10.3.2)

_____ _____
I certify that I have read and performed each instruction. Date